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ABSTRACT

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Corrupting Effects of Unequal Power: Cognitive Perspective-Taking and Cooperation*

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Abstract

Ninety college students were randomly assigned to be high or low-power and interacted with another who consistently cooperated, consistently competed, or alternately cooperated and competed. Low-power persons were hypothesized to be motivated to take another's cognitive perspective in order to reduce their uncertainty and to help them decide how to act to increase their outcomes. Low-power persons were also expected to reciprocate the other's cooperation or competition; high-power persons were expected to be indifferent to the other's behavior. Results indicated that, compared to high power subjects, low-power subjects were more (a) interested in knowing the other's intentions, (b) cooperative, (c) attracted to the other, and (d) willing to facilitate the other's outcomes to the extent the other had acted cooperatively. Results may be interpreted as suggesting that the arrogance of the powerful and the vigilance of the less powerful may be due, in part, to unequal motives for cognitive perspective-taking and for responding to the other's cooperative gestures.

Corrupting Effects of Unequal Power:
Cognitive Perspective-Taking and Cooperation

The arrogance and lack of compassion of the powerful and the intimidation and vigilance of those subject to power are recurrent themes in popular and scholarly writings on families, organizations, and societies. Little research, however, has investigated the validity of these themes or clarified the dynamics of the corrosive effects of unequal power. Solomon (1960) speculated that low-power persons are suspicious of high-power persons because they fear that the powerful can exploit them with little concern for retribution. Kipnis (1972) found support for the notion that unequal power "corrupts" relationships: The persons who had power belittled the performance of the subordinate and sought psychological distance from him. The present study investigates two variables related to arrogance and vigilance in unequal power relationships: Cognitive perspective-taking and cooperation.

Taking another person's perspective is accurately understanding his view of the present situation and his cognitive and affective reactions to it (Flavell, 1974; Borke, 1971; Johnson, 1975). Recent research suggests that visual, affective, and cognitive perspective-taking should be distinguished (Johnson, 1975; Kurdek & Rodgon, 1975). Cognitive perspective-taking is understanding the other person's intentions and his plans for future action. Cognitive perspective-taking would appear to be useful in cooperation to help one coordinate his behavior with others and also to be useful in competition to help one outdo others. Cooperative behavior is characterized by the attempt to increase the outcomes of all involved persons; competitive behavior, by the attempt

to gain greater outcomes than others. Cooperation is also characterized by attraction and the desire to facilitate the outcomes of others (Deutsch, 1962; Kelley & Thibaut, 1969).

Some previous evidence suggests that power and the motivation to take another's perspective are related. Thomas, Franks, and Calonica (1972) argued that low-power persons are more accurate perspective-takers than high-power persons because they need this information to obtain outcomes whereas high-power persons can rely on their formal power to gain outcomes. Thomas and his colleagues found, for example, that children were more accurate perspective-takers of their parents than the parents were of them. Low-power persons have been found to be confident about their attributions of the intentions of high-power persons, perhaps because they had strong incentives to understand and predict the high-power person's behavior (Johnson & Ewens, 1971).

Since low-power persons are heavily dependent on the actions of the powerful, they can be expected to try to understand and predict the intentions of the high-power person. By doing so, the low-power persons can reduce their uncertainty about their future outcomes (information value). Moreover, this knowledge of the high-power person's intentions can help them decide how to act in order to increase their outcomes (reward value) (Cohen, 1959; Thomas, Franks, & Calonica, 1972). Because high-power persons are less dependent on the low-power person, they can be expected to be more certain about their future outcomes and relatively unconcerned about accurately predicting the other's behavior so that they can adjust their behavior to increase their outcomes.

In addition to heightened interest in the high powerful's cognitive perspective, the dependency of low-power persons implies that they have much to gain from establishing cooperative interaction with the high-power person and much to lose from exploitation by the high-power person. Consequently, low-power persons may act cooperatively when the high-power person acts cooperatively; the low-power persons may protect themselves by acting competitively when the high-power person acts competitively. Since high-power persons' outcomes are not so dependent on the low-power person's actions, they may be more indifferent to the behavior of the low-power person. They may act cooperatively or competitively largely for their own individual reasons.

The dependency of low-power persons also implies that their cooperative behavior may be attributed to the external cause of fear of retribution; the high-power person's cooperative behavior may be attributed to the internal commitment to helping the low-power person (Thibaut & Riecken, 1955). A high-power person's cooperative actions may then induce the low-power person to like and to be willing to help the person as well as to behave cooperatively; a low-power person's cooperative actions may not induce attraction, a desire to facilitate, or cooperative behavior.

Based on the above rationale, the following hypotheses are proposed:

(I) Compared to high-power persons, low-power persons have a higher level of motivation to take the other's cognitive perspective both prior to and during social interaction.

(II) To the extent the other person has acted cooperatively, low-power persons (a) act cooperatively, (b) are willing to facilitate the

other's outcomes, and (c) are attracted to the other; high-power person's cooperative behavior, intent to facilitate, and attraction are unaffected by the low-power person's actions.

Method

Design

The overall design implied a factorial analysis of variance with two between-subjects and one within-subjects factors. The between-subjects factors were (a) relative power of the person (high and low) and (b) social interaction (cooperation, competition, and cooperation-competition). The within subjects factor was time of measurement (pre-task and mid-task).

Power can be defined as the capacity to affect outcomes (Thibaut & Kelley, 1959). The high-power person in this study had a greater capacity to affect the outcomes of the other person than did the low-power person. Subjects in the high-power condition were assigned the role of Person 2 and subjects in the low-power condition were assigned the role of Person 1 (see Figure 1). The operationalization of the social interaction variable is given below.

Insert Figure 1 about here

The dependent variables were motivation to take the other's cognitive perspective and cooperation. Motivation for cognitive perspective-taking was defined as interest in knowing the other's intentions as to how he planned to behave in their interaction. Specifically, subjects rated their interest on a 7-point Likert-type

scale items included on the pre-task and mid-task questionnaires in receiving a message from the other. This message would reveal the choices the other person intended to make on the subsequent interaction trials and the strategy he planned to use. Cooperation was defined as (a) cooperative behavior, (b) intent to facilitate the other's outcomes, and (c) attraction. To measure cooperative behavior, the total number of cooperative choices in the interaction were tabulated. Subjects' ratings on a 7-point Likert-type scale item included on the mid-task questionnaire measured the intent to facilitate the other person's outcomes. On another 7-point item on this questionnaire, subjects indicated the extent to which they were attracted to the other person.

Subjects

The subjects were 90 student volunteers enrolled in introductory educational pscyhology courses at The Pennsylvania State University. For participation in the study, the students received credit points that could be applied toward their course grade.

Task

The subjects were given a form of the Prisoner's Dilemma matrix taken from Solomon (1960). The matrix (see Figure 1) indicated the available choices and the number of "points" they would earn based on the combination of their and the other person's choices. In order to insure that subjects were motivated to gain points, they were told that their likelihood of winning a $15 lottery depended on the total number of points which they accumulated. (In actuality, each subject was given an equal chance to win the lottery at the end of the experiment.) Subjects were informed that the object of the task was "To gain as many

points as you can for yourself." Subjects were told that separate lotteries would be held for Person 1 and Person 2 subjects to avoid predisposing them to compete with the other person.

Procedure

Each subject was scheduled in conjunction with one of six female confederates. The subject, upon arrival in the waiting room, was escorted by the experimenter to a chamber where he was told that he was participating in an experiment dealing with decision-making. The subject then read a set of instructions which acquainted him with the matrix and how to perform the task. In order to insure that the subject understood the situation, the subject completed a quiz which required him to indicate the payoffs for Person 1 and Person 2 for each of the four combinations.

At this juncture in the experimental procedure, the relative power of the person was manipulated by randomly assigning subjects to be either Person 1 (low-power) or Person 2 (high-power). When the subject was Person 1, the confederate participated as the high-power person; when the subject was Person 2, the confederate participated as the low-power person.

The subject then answered a pre-task question designed to measure his motivation to take the cognitive perspective of the other person. The subject was then brought into another experimental room. The experimenter excused himself and escorted the confederate (who was housed in a third room) into the room where the subject was seated. A partition isolated the subject from the experimenter and the confederate. The experimenter then briefly reviewed the matrix and eight trials of

the scheduled 20 trials were completed. In order to keep the subject informed of his progress, a tally sheet in the form of a 2 x 2 matrix was provided, and the subject recorded the outcome of each trial in the appropriate cell.

The social interaction treatments were implemented by the manipulation of the confederate's choices during the first eight trials. In the cooperation condition, the subject received cooperative responses for the first eight trials, that is, the confederate chose "A" if she was Person 2 and chose "X" if she was Person 1. Options "A" and "X" were the operationalizations of cooperation because these choices help the subject and the confederate increase their mutual point totals. In the competition condition, the subject received competitive responses for the first eight trials, that is, the confederate chose "B" if she was Person 2 and chose "Y" if she was Person 1. Options "B" and "Y" were the operationalizations of competition because they represent attempts to gain more points than the subject. In the cooperation-competition condition, the subject received four cooperative and four competitive responses in an established, irregular order.

At the completion of eight trials, the experimenter stopped the task and informed the participants that more information was to be collected. The subject was led to believe that 12 more trials were to occur after the completion of a short questionnaire. The subject (and the confederate) were returned to their respective rooms. The subject was given the mid-task questionnaire designed (a) to check the experimental inductions, (b) to measure for a second time his motivation for cognitive perspective-taking, and (c) to measure his

intent to facilitate the other and his attraction toward the other person. The experimenter terminated the experiment when the mid-task questionnaire was completed. The subject was then fully debriefed.

Results

An initial analysis was conducted to determine the effectiveness of the power of the person and the social interaction inductions. In order to determine whether subjects in the low-power and high-power conditions accurately perceived which person had more power, subjects were asked on the mid-task questionnaire to indicate which person (Person 1 or Person 2) they believed had more power in the situation. Results indicated that 84.4% of the low-power subjects perceived Person 2 to be more powerful and that 95.5% of the high-power persons perceived Person 2 to be more powerful. With regard to the extent to which subjects felt that their relationship with the other person was competitive, a 2 X 3 analysis of variance yielded, as expected, a significant main effect due to social interaction ($F = 10.58$, $df = 2/84$, $p < .01$). Subjects who interacted with another who consistently competed ($\bar{X} = 5.30$) perceived the relationship to be significantly ($p < .05$) more competitive than did subjects who interacted with another who consistently cooperated ($\bar{X} = 3.40$). Thus, it can be concluded that the treatment conditions were successfully implemented.

Motivation for Cognitive Perspective-Taking

Low-power subjects were expected to express more interest in information about the other person's intentions than were high-power subjects. In support of Hypothesis I, the analysis yielded a significant main effect for relative power of the person ($F = 4.06$, $df = 1/84$, $p < .05$).

Low-power subjects ($\bar{X}$ = 4.22) rated their interest in taking the other's cognitive perspective as greater than the high-power subjects ($\bar{X}$ = 3.56) prior to and during the social interaction.

According to the second hypothesis, low-power subjects were expected to make more cooperative choices, be more willing to facilitate the other's outcomes, and be more attracted to the other to the extent that the other had acted cooperatively. High-power subjects, in contrast, were expected to be unaffected by the low-power person's previous cooperation or competition. Three 2 X 3 analyses of variance were conducted on the total number of cooperative choices, intentions to facilitate, and attraction in order to test this hypothesis. If the expected interaction was found, the Wholly Significant Difference technique (see Games, 1971) was used to conduct the appropriate follow-up tests.

The analysis of the total number of cooperative choices yielded a main effect for power ($F = 6.77$, $df = 1/84$, $p < .05$), a main effect for social interaction ($F = 5.76$, $df = 2/84$, $p < .05$), and an interactive effect between power and social interaction ($F = 5.51$, $df = 2/84$, $p < .05$). Follow-up tests indicated that the low-power subjects made more cooperative choices when the other person consistently cooperated ($\bar{X}$ = 5.33) than when the other consistently competed ($\bar{X}$ = 1.80) ($t = 6.49$, $df = 84$, $p < .01$). Low-power subjects who interacted with another who alternatively cooperated and competed ($\bar{X}$ = 3.87) made more cooperative choices than low-power subjects who interacted with another who consistently competed ($\bar{X}$ = 1.80) ($t = 3.73$, $df = 84$, $p < .05$). In addition, low-power subjects who were consistently cooperated with

($\bar{X}$ = 5.13) made more cooperative choices than did high-power subjects who were consistently cooperated with ($\bar{X}$ = 2.13) ($t = 5.72$, $df = 84$, $p < .01$). No significant differences among the conditions of the high-power subjects were found. These results support Hypothesis IIa.

The 2 X 3 analysis on the intent to facilitate the other yielded a main effect for social interaction ($F = 3.17$, $df = 2/84$, $p < .05$), and an interactive effect between social interaction and power ($F = 4.10$, $df = 2/84$, $p < .05$). In support of Hypothesis IIb, the follow-up tests indicated that low-power subjects who were consistently cooperated with ($\bar{X}$ = 2.80) expressed more desire to facilitate the other than did low-power subjects who were consistently competed with ($\bar{X}$ = 5.40) ($t = 5.30$, $df = 84$, $p < .01$). Low-power subjects who interacted with another who alternatively cooperated and competed ($\bar{X}$ = 3.73) expressed more willingness to facilitate the other person than did low-power persons who interacted with another who consistently competed ($\bar{X}$ = 5.40) ($t = 3.40$, $df = 84$, $p < .05$). Again, for the high-power subjects, no significant differences were found among the treatments.

The analysis of variance on attraction yielded a main effect for social interaction ($F = 5.11$, $df = 2/84$, $p < .01$) and an interactive effect between social interaction and power ($F = 7.30$, $df = 2/84$, $p < .01$). In support of Hypothesis IIc, follow-up tests indicated that the low-power subjects who were consistently cooperated with ($\bar{X}$ = 2.20) like the other person more than did subjects who were alternatively cooperated and competed with ($\bar{X}$ = 4.26) ($t = 5.75$, $df = 84$, $p < .01$) and low-power subjects who were consistently competed with ($\bar{X}$ = 4.13) ($t = 5.57$, $df = 84$, $p < .01$). In addition, low-power subjects

($\bar{X}$ = 2.20), relative to high-power subjects ($\bar{X}$ = 3.73), liked another person more who interacted with them in a consistently cooperative manner ($t = 4.42$, $df = 84$, $p < .05$). No significant difference was found among the various conditions of the high-power subjects.

Discussion

Results of this study support the hypothesis that low-power persons, compared with high-power persons, have a higher level of motivation to take the other's cognitive perspective. Across all types of social interaction, the low-power subjects rated their interest in obtaining information about the other person's intentions as significantly greater than did high-power subjects. This result supports Thomas, Frank, and Calonica's (1972) contention that low-power persons are interested in perspective-taking (and are more accurate perspective-takers) because they need to understand and predict the high-power person's actions in order to reduce their uncertainty about their future outcomes (information value). In addition, low-power subjects in this situation may have been interested in the other's perspective so they could act in ways that increased their outcomes (outcome value).

In contrast to interest in the other's cognitive perspective, the low-power persons' cooperativeness was affected by the high-power person's cooperative and competitive behavior. Low-power subjects acted more cooperatively, liked the other more, and were more willing to help the other to the extent that the other had cooperated with them. Yet the low-power person's consistent cooperation, consistent competition, or alternating cooperation and competition did not significantly affect

the high-power subjects' behavior, willingness to facilitate, or attraction. These results suggest that unequal power can "corrupt" relationships in that high-power persons may be largely indifferent to various actions of the low-power persons, at least to the strategies used in this study.

Considerable research has suggested that uniformly cooperative choices (the unconditionally cooperative strategy) often provokes exploitation, not cooperation from the other (e.g., Deutsch, Epstein, Canavan, & Gumpert, 1967). This conclusion is based largely on research with persons of equal power. Results of this study qualify this conclusion by suggesting that an unconditionally cooperative strategy may elicit cooperation when employed by a high-power person, though this strategy may be much less effective when used by a low-power person. Presumably, the low-power person does not exploit an unconditionally cooperative high-power person for fear of costly retaliation.

Much of the research on perspective-taking has focused on children's perspective-taking ability and its correlates. Little developmental or social psychological research has identified the conditions under which perspective-taking actually occurs. Flavell (1974) has argued that children usually are able to take another's perspective, but often do not even when it would be useful for them to do so. Indeed, three year old children have been found to be able to take another's perspective (Borke, 1971). Although the results of this study should be replicated with children, they support the idea that a child's dependence upon and involvement with others increases his motivation to understand the intentions of others.

Results also give some indirect support to Maccoby's (1959) argument that a child's dependence increases his role-taking efforts. Maccoby argued that a dependent child anticipates the high-power parent's behavior when this behavior can mediate his present needs and goals. The child covertly rehearses his own requesting behavior and the expected responses and other behaviors of the adult and, under certain conditions, the child overtly performs these behaviors. According to Maccoby, imitation is a consequence of the dependent child's heightened interest in the intentions and expected behaviors of the powerful adult.

The arrogance of the powerful and the vigilance of the less powerful may reflect unequal motives for cognitive perspective-taking and for responding to the other's cooperative behavior. Low-power persons may often muster their resources to determine the high-power person's intentions and to reciprocate his behavior whereas high-power persons are indifferent to the other's intentions and behavior. Results of this study help to explain why high-power persons are often seen as unresponsive and indeed ignorant of the views of the low-power persons. Research could explore the strategies which low-power persons can employ to augment the high-power person's (a) motivation to take their perspective and (b) responsiveness to their cooperative gestures.

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Figure 1

		Person 2	
		A	B
Person 1	X	30 / 30	-30 / 40
	Y	20 / 10	-10 / 20

Note: The outcome for Person 1 is the lefthand value in each cell.